

ABSTRACT OF THE DISCLOSURE

A station for processing a first signal which can be generated by a mobile terminal and belongs to a plurality of signals for mobile radio communications networks. The stations include an input able to receive from an antenna the first signal associated with a first band and at least one adjacent signal of said plurality associated with a second band adjacent to that of the first signal; a processing stage for generating from the first digital signal at a first sampling frequency, this first digital signal including a useful spectral content of the first signal and an interfering spectral content associated with the adjacent signal; a digital filter for processing the first digital signal, attenuating the interfering spectral content, and for providing a filtered digital signal including at least part of the useful special content sampled at a second sampling frequency less than the first sampling frequency and an electro-optical converter for generating from the filtered digital signal electromagnetic radiation to be transmitted on a waveguide.